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C O N F I D E N T I A L SECTION 01 OF 04 NEW DELHI 001264

SIPDIS

DEPT PASS TO NRC

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TAGS: [CVIS](#) [ENRG](#) [ETTC](#) [IN](#) [KNNP](#) [KSCA](#) [PREL](#) [TRGY](#) [TSPL](#) [NSSP](#)

SUBJECT: NRC COMMISSIONER MERRIFIELD MEETS MEA ADDITIONAL
SECRETARY MEERA SHANKAR

SIPDIS

REF: A. NEW DELHI 1261

[1](#)B. NEW DELHI 1263

Classified By: DCM ROBERT BLAKE, REASON 1.4 (B, D)

[1](#)1. (C) Summary: On February 11 NRC Commissioner Merrifield met MEA Additional Secretary Meera Shankar who has the non-proliferation portfolio within her purview. Commissioner Merrifield expressed satisfaction with his visit to Indian facilities and suggested that further cooperation could bring regulatory technical personnel to NRC and that thermo hydraulic testing facilities at BARC could be of interest to NRC in certification of new CANDU reactor designs. Shankar suggested material research, nuclear safety codes, proliferation resistant reactors, ITER, and personnel exchanges as additional areas for cooperation. She also indicated the importance of imports of nuclear fuel to further development of India's nuclear power program. End summary.

Merrifield Expresses Satisfaction With Indian Engagement

[1](#)2. (C) Nuclear Regulatory Commission (NRC) Commissioner Jeffrey S. Merrifield said he came to India with deep curiosity and interest about the nuclear safety programs of AERB, the Bhabha Atomic Research Centre (BARC) and the Nuclear Power Corporation of India Limited (NPCIL). He told Shankar that the AERB capabilities are impressive and that Hall 7 of BARC has some extraordinary facilities to carryout tests on CANDU related hardware (Ref. B).

[1](#)3. (C) The Commissioner told Shankar that he was afforded good access at Tarapur 1 & 2 and reactor-face access at Tarapur 4 as well as unprecedented access at RAPS 1, 2, 3 & 4 as well as the comprehensive tour of RAPS 5 & 6, which are under construction. The Commissioner told Shankar that he had visited all nuclear power plants in the United States and over 100 facilities abroad and by international standards the material conditions of Indian nuclear power plants compared favorably with plants he has seen elsewhere in the world.

[1](#)4. (C) The Commissioner told Shankar that he feels it is important to move forward with bilateral cooperation with AERB. He expressed his wish to accept AERB staff at NRC. The Commissioner said that he and the NRC are great supporters of World Association of Nuclear Operators (WANO) benchmarking nuclear power stations. In his view, WANO exchanges provide an opportunity for operators of US nuclear power plants and operators of Indian nuclear power plants to mutually benefit by witnessing best operating and safety practices in each other's plants. Merrifield said that in the field of nuclear safety, one can never know or learn enough.

[1](#)5. (C) The Commissioner told Shankar that the visit to India has empowered him to push the dialogue further and that through his thorough engagement of the India nuclear power industry, executives and technical personnel, site visits during this journey to India, he has been able to gauge the vigor and dynamism of the Indian nuclear industry.

MEA Shankar's View on U.S.-Indian Nuclear Cooperation and
Indian Export Controls

[1](#)6. (C) Shankar expressed satisfaction that Commissioner Merrifield visited a number of nuclear power plants, both safeguarded as well as unsafeguarded. She also expressed satisfaction about the positive impression that Merrifield received. In India's view, the dialogue on nuclear safety is an important part of the overall U.S.-India relationship. It is India's wish that cooperation in the peaceful uses of nuclear energy expand.

[1](#)7. (C) The U.S.-India relationship has undergone a transformation, Shankar said, and India wishes it to move in a pragmatic way. With the NSSP the relationship has made

progress in non-nuclear areas and some progress with regards to safeguarded facilities. Thus, the Government of India looks forward to more cooperation.

18. (C) She went on to say that India has a cradle to grave control of technologies and materials that apply to nuclear exports. India has the Atomic Energy Act, Shankar said, which predates many of the laws that other countries have put in place to protect nuclear materials, technology and know how. It is not really in India's interest that its technologies fall into the hands of those countries that may want harm India's interests. India has a number of redundant checks on issuing licenses for production and transport of nuclear materials. Customs is fastidious on clearances that affect nuclear materials. In addition, India keeps its regulations in the nuclear field up to date so that control systems remain relevant.

19. (C) Responding to DCM Blake's observation that in order to move forward on NSSP the U.S. was looking forward to India's progress on export control regulation, Shankar said that India is making progress, that there is much on India's agenda and that India is actively engaged. However, it is tough to develop a consensus, Shankar said. Common ground develops in inter-agency meetings in Delhi, but the common ground quickly crumbles when participants try to develop consensus in and buy-in from the institutions they represent. Shankar mused that in this regard there is a lot to be said about authoritarian governance as it forges consensus without effort.

Further Development of Nuclear Power in India

10. (C) Shankar explained that India's goal is to have in place 20 gigawatts of nuclear power by 2020, an option that it can insure using a thorium based fuel cycle. This option is attractive because it will allow India to expand the nuclear power program based on internal resources. Nuclear energy has its advantages as it is environmentally benign and produces no greenhouse emissions. The costs of building nuclear power plants have gone down dramatically for NPCIL, so India believes that nuclear power generation is quickly becoming very cost effective when compared to other sources of energy.

11. (C) Thus, supplies of nuclear fuel continue to be of interest to India and it is an area where the U.S. might want to have a re-look given the zooming price of liquid hydrocarbons. India understands that constraints of U.S. law prevent the US from providing fuel. But, if other states agreed to provide nuclear fuel to India, the US, perhaps ought not to oppose such arrangements, Shankar said.

12. (C) In the nuclear field, India is looking at options that would allow it to obtain nuclear fuel from elsewhere. One option worth considering is to put nuclear power plants that are built through international cooperation under site-specific safeguards. At this time, however, India does not intend to put the power plants it has built on its own under site-specific safeguards.

13. (C) Given the objectives of sustained economic growth and India's demographics, if India is going to insure rapid development it must ensure its energy program keeps pace. Constraints on expanding the nuclear program will hold back India's development, as nuclear energy is a critical part of India's energy supply mix. The Indian energy market, Shankar said, is very price inelastic. Markets cannot absorb very sharp energy price increases as resistance to price increases in India can lead to anarchic behavior. Thus, India envisions that international cooperation in meeting its future energy needs will allow India to develop faster.

14. (C) Shankar then steered the discussion to harmonization of guidelines under the nuclear safety convention. India believes that there is a mismatch between nuclear safety requirements and availability of equipment under the Nuclear Suppliers Group (NSG). In India's view, it would be important to harmonize the nuclear safety exception that will allow a more flexible interpretation of NSG rules such that technology transfers that promote nuclear safety can take place. In short, India and the U.S. must find creative solutions to end the isolation of the India nuclear power program and bring about benefits that both the US and India can share.

15. (C) Merrifield told Shankar that in his view as an attorney, legislation and regulation always arise from a back-looking perspective. Thus, now that we are in 2005, the U.S.-India dialogue on nuclear matters is far different but takes place under a framework that developed over the course of 40 years. There is a need to review these issues with a more forward-looking perspective.

16. (C) With regards to nuclear regulation, nuclear safety knows no international boundaries, Merrifield said. It is important that the U.S. and India reduce barriers to improve safety and be able to move forward under the NSSP framework.

India's Wishes for Collaboration on Nuclear Safety

17. (C) In the nuclear area, Shankar said, the focus on nuclear safety is welcome. There have been workshops between the Atomic Energy Regulatory Board (AERB) and the Nuclear Regulatory Commission (NRC) in India and the U.S. and it looks like the agenda that had been agreed to originally has been completed. Thus, perhaps, the U.S. and India ought to look at additional areas where future cooperation. Shankar identified four areas that would be of interest to India:

- New reactor design;
- Nuclear reactor material degradation;
- Probabalistic risk assessment; and
- Training of personnel.

18. (C) Shankar elaborated that India would very much like to have an opportunity to place some young scientists, for periods of about six months, within NRC or at educational institutions that have strong programs in nuclear safety and power. In addition, India is also looking forward to validation of nuclear reactor safety software where the US and India could validate each other's safety codes.

19. (C) Regarding U.S.-specific cooperation, India is interested in proliferation resistant reactors and would like very much to participate in the Gen-IV R&D project, as it strongly believes that India has something to bring to the table.

20. (C) Merrifield told Shankar that, while NRC is eager to benchmark codes and to allow comparison of predictions of U.S. and Indian codes, some of the details of what cooperation is possible depend on our government's progress on the NSSP process. With regard to Gen-IV, Merrifield told Shankar that DOE is in the lead. The Commissioner is aware that India has capabilities that it could bring to the table and the Commissioner promised that he would highlight India's capabilities and its interest in Gen-IV when he engages DOE officials upon his return.

Use of BARC Facilities For Safety Testing of CANDU Components

21. (C) Department of Atomic Energy (DAE) International Affairs Director Raghuraman asked Merrifield to provide some clarification about opportunities there may be for safety collaborations on thermo hydraulics, which could take advantage of equipment in Hall 7 of BARC. Merrifield qualified that the prevalence of Pressurized Water Reactors (PWR) in the U.S. called for development of specialized facilities that address safety questions that are relevant to those reactors. The U.S. has research facilities that allow the NRC to determine that safety requirements for PWRs are met. In contrast, if the NRC were asked to certify a CANDU reactor for construction in the U.S., the U.S. does not have any CANDU reactors in its inventory, nor does the U.S. have any facilities to validate information that the reactor manufacturer would need to provide in support of the certification requirements. Thus, if questions were to arise with the certification of the new CANDU reactor, it is conceivable that the U.S. might consider requesting India's collaboration to use the facilities in Hall 7 of BARC.

22. (C) Commissioner Merrifield told Shankar that the NRC, as a regulatory agency, looks at issues very broadly and examines those in which it can find creative solutions to move forward. As a regulatory agency, NRC embraces other regulatory agencies. In NRC's view, regulation of the nuclear industry benefits the public by allowing utilities to deliver power, in a safe manner, at costs that are consistent with high standards of safety and public protection.

Visas Challenge Indian Participation in WANO

23. (C) As it regards India's participation in WANO, the NRC is very supportive of WANO benchmarking and the U.S. nuclear industry has already benefited from interactions from NPCIL in the WANO context. In the WANO context, Shankar observed, some Indian nuclear power program participants had been denied visas to participate in IAEA sponsored activities. Merrifield said that while visas are not in the purview of NRC, NRC became aware of the difficulties that S.K. Jain, Managing Director of NPCIL, was facing in obtaining a visa to travel to the United States. In this case, NRC collaborated with Embassy New Delhi to ensure that Jain could travel to the United States to participate in the meeting.

124. (C) Regarding visa issues, DCM Blake added that timely submission of visa applications provides an opportunity for consular and Embassy officials to help insure travel of Indian scientists to the United States without delay.

India Wishes to Participate in ITER

125. (C) Shankar also expressed interest for India's participation in the ITER project. India discussed the ITER project with the leadership of the European Commission (EC) during their visit to India. India was told that the EC has an open mind and Shankar wanted to make sure that it flagged India's interest in participation in ITER and hoped that the U.S. would support India's endeavors.

126. (C) Merrifield explained that in regard to ITER, the site selection has become a challenge that is clouding the discussions about those who would like to participate in the project. Nonetheless, he stated that we would inform DOE about the interest of the Government of India in this matter.

Meeting Participants

127. (C) NRC Commissioner Jeffrey S. Merrifield
NRC Deputy Director Margaret Doane
DCM Robert Blake
SciCouns Marco Di Capua
Madam Meera Shankar, Additional Secretary, UN, MEA
Santosh Jha, Deputy Secretary, US and Canada, MEA
128. K. Raghuraman, Head, International Studies, Department of Atomic Energy

128. (C) NRC Commissioner Merrifield cleared this cable.

129. (C) NRC Commissioner also met with Foreign Secretary Shyam Saran (Ref. A) and MEA Joint Secretary S. Jaishankar (Ref. B)
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